



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/511,582

10/18/2004

Epke Bosma

19200-000041/US

4500

30593 7590 05/30/2008  
HARNESSE, DICKEY & PIERCE, P.L.C.  
P.O. BOX 8910  
RESTON, VA 20195

EXAMINER

NGUYEN, SON T

ART UNIT

PAPER NUMBER

3643

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,582	<b>Applicant(s)</b> BOSMA, EPKE	
	<b>Examiner</b> Son T. Nguyen	<b>Art Unit</b> 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3,5,7** are rejected under 35 U.S.C. 103(a) as being unpatentable over van den Berg (5704311) in view of Birk (SE 200000179A on form PTO-1449).

For claims 1-2, van den Berg teaches a method for separating a first quantity of milk drawn from a milking animal in an automatic milking machine and a second quantity of milk drawn from the milking animal in said milking machine, comprising: milking an animal using said automatic milking machine 18, measuring a first indicator of mastitis during said milking (col. 1, lines 50-55,col. 2, lines 11-35, first indicator indicates mastitis by decreasing below threshold value D1 calculated from mastitis sensor M and flow sensor S), and only if said first indicator of mastitis indicating indicates mastitis (by falling below threshold value D1), a second indicator of mastitis is performed (col. 1, lines 50-55,col. 2, lines 11-35, second indicator of mastitis is the threshold value D2, which depends on the extent of the mastitis result of D1, D2 also based on calculation of mastitis sensor M and flow sensor S), said second indicator of mastitis includes: analyzing at least a part of said first quantity of milk using mastitis sensor M and flow sensor S, and operating a valve 24 in dependence on the threshold value reading indicating mastitis. However, van den Berg is silent about an on-line cell

counter and plurality of containers correlating to first, second, and third threshold values for different superior quality of milk.

Birk teaches similar method as that of van den Berg in which Birk employs an on-line somatic cell sensor/counter 25 together with a computer 35 to obtain cell readings to detect mastitis. In addition, Birk also teaches operating valves 2a-5d in response to the cell readings in relation to threshold readings so as to separate the milk in different containers according to different milk quality. It would have been an obvious substitution of functional equivalent to substitute the sensors as employed in van den Berg with an on-line cell counter as taught by Birk, since a simple substitution of one known element for another would obtain predictable results. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various containers as taught by Birk to contain different quality of milk based on cell counts in relation to threshold values in order to separate the milk into different level of quality of milk for sale or other use.

For claim 3, van den Berg as modified by Birk (emphasis on van den Berg) further teaches wherein said first indicator of mastitis is one indicator, or a selection of multiple indicators (van den Berg teaches flow and mastitis sensors together), selected from a group of indicators comprising: the conductivity of said first quantity of milk, the NAgase value of said first quantity of milk, the Urea value of said first quantity of milk, the temperature of said first quantity of milk, the milk flow from said milking animal or the milk quantity from a teat of said milking animal

For claim 5, van den Berg as modified by Birk further teaches wherein said first quantity of milk drawn from one milking animal is collected in an end unit for the duration of performing the somatic cell count.

For claim 7, in addition to the above, Birk teaches a method for separating a first quantity of milk drawn from a milking animal in an automatic milking machine and a second quantity of milk drawn from the milking animal in said milking machine comprising milking an animal using said automatic milking machine, wherein said first quantity of milk is collected from a first milking animal and said second quantity of milk is collected from a second milking animal (page 4, lines 17-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the first quantity of milk be collected from a first milking animal and said second quantity of milk be collected from a second milking animal as taught by Birk in the method of van den Berg as modified by Birk in order to save time and cost by having the total milk from all animals be analyzed for mastitis and not just one animal only.

3. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over van den Berg as modified by Birk as applied to claim 1 above, and further in view of Nilsson (204/0168643A1).

van den Berg as modified by Birk is silent about wherein said first quantity of milk is collected from a first teat of a milking animal and said second quantity of milk is collected from a second teat of said milking animal.

Nilsson teaches similar method as that of van den Berg as modified by Birk in which Nilsson teaches wherein said first quantity of milk is collected from a first teat of a

milking animal and said second quantity of milk is collected from a second teat of said milking animal. See [0018] thru [0021]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the first quantity of milk is collected from a first teat of a milking animal and said second quantity of milk is collected from a second teat of said milking animal as taught by Nilsson in the method of van den Berg as modified by Birk in order to analyze all teats for mastitis and not just only one teat.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-3,5-7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 3643

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T. Nguyen/  
Primary Examiner, Art Unit 3643